

REMARKS

This Amendment is filed in response to the FINAL rejection mailed on January 17, 2008, and is filed with a Request for Continued Examination (RCE) filed on even date herewith. All objections and rejections are respectfully traversed.

Claims 1-72 are in the case.

Claims 1, 16, 22, 28, 34, 39, 41, 44, 49, 54, 69, and 71 are amended.

No new claims were added.

No claims were cancelled.

Request for Interview

The Applicant respectfully requests a telephone interview with the Examiner after the Examiner has had an opportunity to consider this Amendment, but before the issuance of the next Office Action. The Applicant may be reached at 617-951-3028.

At Page 2 of the Office Action the Examiner presented a “Response to Arguments”, in which the text states:

“Applicant’s arguments . . . argue . . . 3) there is a separate readahead metadata . . . for each read stream. . . . This argument is not supported by the claims.”

Applicant respectfully urges that this point is made explicit by amendment of the claims, rather than implicit as formerly in the claims.

At Page 2, Paragraph 3 – Page 3 Paragraph 4, of the Office Action, Claims 22-27 were rejected under 35 U.S.C. 112, second paragraph.

Amendment of Claim 22 is believed to satisfy this rejection.

At Paragraphs 5-26 of the Office Action, Claims 1-14 & 16-72 were rejected under 35 U.S.C. 102(b) as being anticipated by Permut et al. U. S. Patent No. 6,260,115, (hereinafter Permut).

Applicant's claimed invention, as set forth in representative claim 1, comprises in part:

1. A method for a storage operating system implemented in a storage system to optimize an amount of readahead data retrieved from a data container of the storage system, the method comprising:
 - maintaining a plurality of files;*
 - maintaining, for a selected file of the plurality of files, a plurality of readset data structures, each readset data structure holding a plurality of factors for a selected readstream;*
 - receiving a client read request for a particular read stream at the storage system;
 - locating a readset data structure for the particular read stream;
 - determining whether the storage operating system is permitted to retrieve readahead data from the data container in response to the received client read request;
 - if it is determined that the storage operating system is permitted to retrieve readahead data from the data container, performing the steps of ,
 - (i) *selecting an amount of readahead data to retrieve from the data container, based on the plurality of factors stored within the readset data structure;*
 - (ii) *retrieving the selected amount of readahead data from the data container; and*

- (iii) *determining if the readahead data structure meets a criteria for being updated, and if the readahead data structure meets the criteria then updating the readahead data structure.*

Permut discloses a method for detecting and remembering sequential access patterns for the purpose of prestaging tracks ahead of the current access request. Specifically, the number of tracks requested to be prestaged ahead may be responsive to the amount of storage available in the cache memory. In his Abstract Permut states:

“Once a sequential access pattern is detected, one or more tracks are requested to be prestaged ahead of the current access request. The number of tracks requested to be prestaged ahead may be responsive to the amount of storage available in the cache memory.”

In his Fig. 7A, Fig. 7B, Fig. 7C, and Fig. 7D Permut determines if prestaged tracks are sequential, and if prestaging is done in response to hints.

Applicant respectfully urges that Permut has no disclosure of Applicant’s claimed novel

maintaining a plurality of files;

maintaining, for a selected file of the plurality of files, a plurality of readset data structures, each readset data structure holding a plurality of factors for a selected readstream (i) selecting an amount of readahead data to retrieve from the data container, based on the plurality of factors stored within the readset data structure;

- (ii) *retrieving the selected amount of readahead data from the data container; and*
- (iii) *determining if the readahead data structure meets a criteria for being updated, and if the readahead data structure meets the criteria then updating the readahead data structure.*

In particular, Applicant respectfully urges that Permut has no disclosure of Applicant's claimed novel *maintaining, for a selected file of the plurality of files, a plurality of readset data structures, each readset data structure holding a plurality of factors for a selected readstream (i) selecting an amount of readahead data to retrieve from the data container, based on the plurality of factors stored within the readset data structure.*

That is, Applicant respectfully urges that Permut has no disclosure of Applicant's claimed *maintaining, for a selected file of the plurality of files, a plurality of readset data structures, each readset data structure holding a plurality of factors for a selected readstream.* That is, Permut has no disclosure of Applicant's claimed *for a selected file of the plurality of files, a plurality of readset data structures.*

Further, Applicant respectfully urges that Permut has no disclosure of Applicant's claimed novel *selecting an amount of readahead data to retrieve from the data container, based on the plurality of factors stored within the readset data structure.*

Even further, Applicant respectfully urges that Permut has no disclosure of Applicant's claimed novel *determining if the readahead data structure meets a criteria for being updated, and if the readahead data structure meets the criteria then updating the readahead data structure.*

Accordingly, Applicant respectfully urges that Permut is legally incapable of anticipating Applicant's claimed invention under 35 U.S.C. 102 because of the absence from the disclosure of Permut of Applicant's claimed novel *maintaining, for a selected file of the plurality of files, a plurality of readset data structures, each readset data structure holding a plurality of factors for a selected readstream (i) selecting an amount of readahead data to retrieve from the data container, based on the plurality of factors stored within the readset data structure.*

At Paragraphs 27 – 29 Claim 15 was rejected under 35 U.S.C. 103 in view of Permut and further in view of Vishlitzky et al. U. S. Patent No. 5,649,156 (hereinafter Vishlitzky).

Applicant respectfully notes that Claim 15 is dependent, and is dependent from an independent claim which is believed to be in condition for allowance.

Accordingly, Claim 15 is believed to be in condition for allowance.

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims, and therefore in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account
No. 03-1237.

Respectfully submitted,

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